**WHAT IS CLAIMED IS:**

1. A composition, comprising:

a $C_n$-Ab, wherein $C_n$ is a fullerene or nanotube comprising n carbon atoms, and Ab is a moiety comprising an antigen-binding site and is linked to the $C_n$; and

a therapeutic molecule associated with the $C_n$-Ab, wherein the therapeutic molecule comprises a radioisotope (M).

2. The composition of claim 1, wherein the Ab is covalently linked to the $C_n$.

3. The composition of claim 1, wherein the $C_n$ is substituted with one or more water-solubilizing groups.

4. The composition of claim 1, wherein the Ab comprises an antigen-binding site selected from ZME-018, SCFVMEL, dSCFVMEL, GD2, HuM195, herceptin, BACH 250, ML 3-9, C 6.5, or αMMP9.

5. The composition of claim 1, further comprising a pharmaceutically-acceptable carrier.

6. The composition of claim 1, wherein the $C_n$ is a nanotube fragment and the therapeutic molecule is associated by van der Waals interactions with the $C_n$.

7. The composition of claim 1, wherein the radioisotope is $^{125}I$, $^{131}I$, $^{90}Y$, $^{221}At$, $^{225}Ac$, $^{212}Bi$, $^{213}Bi$, $^{99}Re$, $^{166}Ho$, $^{177}Lu$, or $^{153}Sm$.

8. The composition of claim 1, having the formula M@$C_n$-Ab.

9. A method of treating a disease in a mammal, comprising:

administering to the mammal an effective amount of a composition comprising (i) a $C_n$-Ab, wherein $C_n$ is a fullerene or nanotube comprising n carbon atoms and Ab is a moiety comprising an antigen-binding site and is linked to the $C_n$, (ii) a pharmaceutically-acceptable carrier, and (iii) a therapeutic molecule associated with the $C_n$-Ab, wherein the therapeutic molecule comprises a radioisotope.

10. The method of claim 9, wherein the Ab is covalently linked to the $C_n$.

11. The method of claim 9, the $C_n$ is substituted with one or more water-solubilizing groups.

12. The method of claim 9, wherein the Ab comprises an antigen-binding site selected from ZME-018, SCFVMEL, dSCFVMEL, GD2, HuM195, herceptin, BACH 250, ML 3-9, C 6.5, or αMMP9.

13. The method of claim 9, wherein the $C_n$ is a nanotube fragment and the therapeutic molecule is associated by van der Waals interactions with the $C_n$.

14. The method of claim 9, wherein the radioisotope is $^{125}I$, $^{131}I$, $^{90}Y$, $^{221}At$, $^{225}Ac$, $^{212}Bi$, $^{213}Bi$, $^{99}Re$, $^{166}Ho$, $^{177}Lu$, or $^{153}Sm$.

15. The method of claim 9, wherein the radioisotope (M), $C_n$, and Ab form a structure having the formula M@$C_n$-Ab.

16. The method of claim 9, wherein the disease is a cancer.

17. The method of claim 9, wherein the composition is administered at a dosage of from about 0.001 mg therapeutic molecule per kg body weight per day to about 1 g therapeutic molecule per kg body weight per day.